

REMARKS

Reconsideration of this application is respectfully requested.

A. Status of Claims

Claims 71, 76, and 77 are amended. Claims 71-77 are pending and stand rejected.

The claims have been amended to make clear that the claimed constructs are for “homologous recombination.” Consistent with that use, the constructs contain first and second “recombination DNA sequences,” each homologous to first and second “endogenous sequence in the genome of a mammalian cell.” And those endogenous sequences are “adjacent to a desired insertion site in the genome of the mammalian cell.” The constructs also contain “a first insertion DNA sequence and a second insertion DNA sequence.” The claims specify that “the first and second insertion DNA sequences are located between the first and second recombination DNA sequences in the DNA construct.”

That configuration allows for recombination between the first recombination DNA sequence and the first endogenous DNA sequence, and between the second recombination DNA sequence and the second endogenous DNA sequence, to insert the first and second insertion DNA sequences into the genome of the mammalian cell, between the two endogenous DNA sequences.

Support for the amendments to the claims is found throughout the application as filed, such as at page 4, lines 1-13. The amendments do not introduce new matter.

B. Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 71-77 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly non-enabled. Action at 2. Specifically, the Examiner is concerned that, because the claims do not expressly require that the second DNA sequence is operatively linked to regulatory elements to direct their expression, undue experimentation would be required to practice the claimed invention. In response, Applicant notes that the claims as amended recite “wherein the second insertion DNA sequence is operatively linked to regulatory elements that direct expression in transformed cells of the second gene product that confers resistance to the selection agent.” Applicant submits that that amendment addresses the Examiner’s concern and that the rejection should be withdrawn.

C. Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 71-77 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. Action at 3. Specifically, the Examiner is concerned that the first and second gene products are not necessarily functionally linked and that, therefore, the recitation “the expression product of said DNA” could be referring to either product. In response, Applicant notes that the claims as amended recite “wherein the second insertion DNA sequence is operatively linked to regulatory elements that direct expression in transformed cells of the second gene product that confers resistance to the selection agent.” Applicant submits that that amendment addresses the Examiner’s concern and that the rejection should be withdrawn.

D. Rejections Under 35 U.S.C. § 102(b)

Various groupings of claims 71-77 stand rejected under 35 U.S.C. § 102(b) over the Song, Chernajovsky, Lindenmaier, Sleckman, Petkovich, and George references. Action at 5-10. Applicant traverses the rejection as to the amended claims.

As amended, the claims recite a “DNA construct for homologous recombination” comprising two compound elements. Element (A) comprises “a first recombination DNA sequence and a second recombination DNA sequence, wherein the first recombination DNA sequence is homologous to a first endogenous sequence in the genome of a mammalian cell, wherein the second recombination DNA sequence is homologous to a second endogenous sequence in the genome of the mammalian cell, and wherein the first and second endogenous sequences are adjacent to a desired insertion site in the genome of the mammalian cell.” Element (B) comprises “a first insertion DNA sequence and a second insertion DNA sequence,” which are further defined in the claims. The claims also recite that “the first and second insertion DNA sequences are located between the first and second recombination DNA sequences in the DNA construct.”

None of the cited references discloses a DNA construct for homologous recombination that comprises elements (A) and (B) as recited in the amended claims, in which “the first and second insertion DNA sequences are located between the first and second recombination DNA sequences in the DNA construct.” Therefore, none of the cited references discloses every element of any of the claims and the claims are not anticipated by the references. Accordingly, the rejections for anticipation over the cited references should be withdrawn.

E. Non-Statutory Double Patenting

Claims 71-77 stand provisionally rejected for alleged non-statutory double patenting over claims 90, 99, and 108 of co-pending Application No. 10/639,754. Applicant acknowledges the rejection. Applicant is considering whether a Terminal Disclaimer is appropriate and will address this issue at such time as a conflicting claim is found otherwise allowable.

F. Conclusion

Applicant respectfully submits that claims 71-77 are in condition for allowance. Issuance of a Notice of Allowance is earnestly requested.

If there is any fee due in connection with the filing of this Reply, please charge the fee to our Deposit Account 06-0916.

Respectfully submitted,

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Dated: **DRAFT**

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